

Amendments to the Claims:

1. (Currently Amended) A control system for controlling the movement of a piston (10) in a fluid-pumping device (1), the piston (10) being displaceable in a block (5) of the fluid-pumping device (1) and being driven by a motor (2) fed by a voltage (V), the system comprising:

- a semiconductor electronic device (T) having an outlet (S_G) and an inlet (G), the semiconductor electric device (T) cyclically applying the voltage (V) to the motor (2) to drive the piston (10);

- a resistive element (R_b);

- a capacitive element (C_y);

- a piston-position sensor (S) to indicate the passage of the piston (10) by a point (R) at the block (5) of the fluid-pumping device (1); and

the system being characterized by:

- the capacitive element (C_y) being electrically connected to the semiconductor device (T) between and re-feeding the outlet (S_G) and the inlet (G), the capacitive element (C_y) triggering the semiconductor electronic device (T) to apply the voltage (V) to the motor (2);

- the capacitive element (C_y) being charged by means of the resistive element (R_b) at each cycle of application of voltage (V) to the motor (2), the capacitive element (C_y) being discharged, at least partly, when the piston (10) passes by the point (R) and delaying the trigger point of the semiconductor electronic device (T) in a subsequent cycle proportionally to the time of passage of the piston (10) by the point (R).

2. (Currently Amended) A control system according to claim 1, characterized in that the semiconductor electronic device (T) is self-fed by the voltage (V).

3. (Currently Amended) A control system according to claim 1, ~~2, or 3~~, characterized by additionally comprising a triggering semiconductor electronic device (T₁) electrically connected with the inlet (G) and with the capacitive element (C_y) and resistive element (R_b).

4. (Currently Amended) A control system according to ~~any one of claim 1 to 3~~, characterized in that the electronic device comprises a bidirectional power switch (T).

5. (Currently Amended) A control system according to ~~any one of claim 1 to 4~~, characterized in that the sensor (S) is electrically connected with the entry (G) of the device (T).

6. (Currently Amended) A control system according to claim 5, characterized in that the device (T) is actuated by a semiconductor electronic device (T1).

7. (Currently Amended) A control system according to claim 6, characterized in that the position sensor (S) includes a contact element (~~Sp~~) for contact with the piston (10).

8. (Currently Amended) A control system according to claim 7, characterized in that the position sensor (S) includes an inductive element (Li).

9. (Currently Amended) A control system according to claim 8, characterized in that the inductive element (Li) is electrically connected with a semiconductor device (T2).

10. (Currently Amended) A method of controlling the movement of a piston (10) in a fluid-pumping device (1), the piston (10) being displaceable in a block (5) of the fluid-pumping device (1) and being driven by a motor (2) fed by a voltage (V), the method comprising the steps of:

- charging a capacitive element (Cy) by means of a resistive element (Rb),
- monitoring the movement of the piston (10) by means of a position sensor (~~Sp~~, Li), and the method being characterized by:
- maintaining the charge level of the capacitive element (Cy) until the position sensor (~~Sp~~, Li) has detected the passage of the piston (10) by a predetermined point (R) at the block (5), and discharging, at least partly, the capacitive element (Cy).

11. (Currently Amended) A method according to claim 10, characterized in that, after the step of discharging, the capacitive element (C_y) is again charged.

12. (Currently Amended) A method according to claim 10 ~~or 11~~, characterized in that, in the step of monitoring the movement of the piston (10), a contact element (S_p) is actuated.

13. (Currently Amended) A method according to claim 10 ~~or 11~~, characterized in that, in the monitoring step, an inductive element (L_i) is actuated.

14. (Currently Amended) A fluid-pumping device (1) comprising a piston (10) displaceable in a block (5), the piston (10) being driven by a motor (2) fed by a voltage (V), and comprising a circuit (30, 40) having a semiconductor electronic device (T), a resistive element (R_B), a capacitive element (C_y) and a piston-position sensor (S) to indicate the passage of the piston (10) by a point (R) at the block (5);

the device (1) being characterized by comprising:

- the resistive element (R_B) and the capacitive element (C_y) being electrically connected with the semiconductor electronic device (T), re-feeding an outlet and an inlet (G) of the latter;
- the capacitive element (C_y) being charged by means of the resistive element (R_B) and being discharged, at least partly, when the piston (10) passes by the point (R).

15. (Currently Amended) A device according to claim 14, characterized in that the circuit (30, 40) is self-fed.

16. (Currently Amended) A device according to claim 14 ~~or 15~~, characterized in that the electronic device comprises a bidirectional power switch (T).

17. (Currently Amended) A device according to claim 14, ~~15, or 16~~, characterized in that the position sensor (S) includes a contact element (S_p) for contact with the piston (10).

18. (Currently Amended) A device according to claim 14, ~~15, or 16~~, characterized in that the position sensor (~~S~~) includes an inductive element (~~L~~).